

REMARKS/ARGUMENTS

Claims 1-11 are pending in the Application.

Claims 1-11 stand rejected.

I. REJECTIONS UNDER 35 U.S.C. § 103(a) OVER *MOORE* IN VIEW OF *CASH*

Claims 1 and 7-11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Moore, U.S. Patent No. 6,583,186 ("*Moore*") in view of Cash et al., 6,200,462 ("*Cash*"). Office Action, at 3. Applicant respectfully traverses these rejections.

The Examiner is reminded that, in order to establish a prima facie case of obviousness under 35 U.S.C. § 103(a), three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on Applicant's disclosure. See M.P.E.P. 706.02(j); see also *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q. 2d 1438 (Fed. Cir. 1991).

Claim 1

Regarding Independent Claim 1, the Examiner contends that while "*Moore* does not disclose separating the hydrocracking effluent into a vapor stream and a liquid stream," that "*Cash* discloses separating a hydrocracking effluent into a vapor stream and a liquid stream," and that "it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the processes of *Moore* to include separating the hydrocracking effluent into a vapor stream and a liquid stream . . . and recycling the hydrogen-rich stream to the hydrocracking zone and the hydrotreating zone in order to lower costs." Office Action, at 3-4.

Applicants respectfully point out that while the present Application and *Moore* both involve the processing of Fischer-Tropsch (FT) products, *Cash* does not. Applicants note that *Cash* hydrotreats the hydrocarbon feed before hydrocracking so as to remove heteroatoms such as sulfur and nitrogen which can poison the hydrocracking catalysts, and to remove olefins and aromatics—as they are prone to fouling a hydrocracking catalyst. See *Cash*, col. 3, l. 65-col. 4, l. 6. As FT products are inherently free of such poisoning and fouling agents (see Application p. 1, ll. 22-24), *Cash* evidently had not envisioned using their invention to process FT products. Moreover, the hydrocracked zone effluent **120** of *Cash* is separated merely into hydrocracked liquid stream **135** and a H₂-rich vapor stream **130**, the latter of which can be recycled back into the hydrocracking and/or hydrotreating process. See *Cash*, Fig. 1.

Like *Moore*, *Cash* does not teach separating a hydrocracked effluent into a lighter and a heavier hydrocarbon feedstock (as required by Claim 1), and therefore the combination of *Moore* with *Cash* does not possess all of the claimed limitations. Applicants note that if even a single claim limitation is not taught or suggested by the prior art, then that claim cannot be obvious over the prior art. See *Application of Glass*, 472 F.2d 1388, 1392 (C.C.P.A. 1973). Accordingly, Claim 1 is not obvious over *Moore* in view of *Cash*.

If, for the sake of argument, the combination of *Moore* and *Cash* did possess all of the limitations of Claim 1, *Cash* still teaches away from using their invention for the processing of FT products. See above; see also *Monarch Knitting Machinery v. Sulzer Morat GmbH*, 139 F.3d 877, 882 (Fed. Cir. 1998); *In re Geisler*, 116 F.3d 1465, 1471 (Fed. Cir. 1997); *Kloster Steedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 1573 (Fed. Cir. 1986). Accordingly, Claim 1 is further not obvious over *Moore* in view of *Cash*.

Regarding the Examiner's application of *In re Harza* (Office Action, at 4), Applicant is unclear as to what limitation in *Moore* the Examiner believes is being duplicated. Regardless, Claim 1 is still not obvious over *Moore* in view of *Cash*.

for the reasons described above. Merely duplicating a common element will have no bearing on the non-obviousness so described.

Claims 7-11

Regarding Claims 7-11, Applicants respectfully point out that each of these claims depends directly or indirectly from Independent Claim 1. As such, Claims 7-11 are not obvious over *Moore* in view of *Cash* for the same reasons Claim 1 is not obvious over *Moore* in view of *Cash*. See *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596 (Fed. Cir. 1988)

As a result of the foregoing, Applicants respectfully request that the Examiner withdraw the rejection of Claims 1 and 7-11 under 35 U.S.C. § 103(a) as being unpatentable over *Moore* in view of *Cash*.

II. REJECTIONS UNDER 35 U.S.C. § 103(a) OVER MOORE IN VIEW OF CASH AND FURTHER IN VIEW OF IRELAND

Claims 2 and 3 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Moore* in view of *Cash*, and further in view of *Ireland et al.*, US 4,052,477 ("*Ireland*"). Office Action, at 5. Applicants respectfully traverse these rejections.

Regarding Claims 2 and 3, Applicants respectfully point out that these Claims both depend directly from Independent Claim 1. As such, Claims 2 and 3 are not obvious over *Moore* in view of *Cash* for the same reasons Claim 1 is not obvious over *Moore* in view of *Cash*. See *In re Fine*. Because the combination of *Moore* and *Cash* is improper (see above), further combination with *Ireland* is irrelevant. Accordingly, Claims 2 and 3 are not obvious over *Moore* in view of *Cash*, and further in view of *Ireland*.

As a result of the foregoing, Applicants respectfully request that the Examiner withdraw the rejection of Claims 2 and 3 under 35 U.S.C. § 103(a) as being unpatentable over *Moore* in view of *Cash*, and further in view of *Ireland*.

III. REJECTIONS UNDER 35 U.S.C. § 103(a) OVER MOORE IN VIEW OF CASH AND FURTHER IN VIEW OF DANCUART

Claim 4 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Moore* in view of *Cash*, and further in view of *Dancuart*, US 6,475,375 ("*Dancuart*"). Office Action, at 6. Applicants respectfully traverse this rejection.

Like Claims 2 and 3 above, Applicants respectfully point out that Claim 4 depends directly from Independent Claim 1. As such, Claim 4 is not obvious over *Moore* in view of *Cash* for the same reasons Claim 1 is not obvious over *Moore* in view of *Cash*. See *In re Fine*. Because the combination of *Moore* and *Cash* is improper (see above), further combination with *Dancuart* is irrelevant. Accordingly, Claim 4 is not obvious over *Moore* in view of *Cash*, and further in view of *Dancuart*.

As a result of the foregoing, Applicants respectfully request that the Examiner withdraw the rejection of Claim 4 under 35 U.S.C. § 103(a) as being unpatentable over *Moore* in view of *Cash*, and further in view of *Dancuart*.

IV. REJECTIONS UNDER 35 U.S.C. § 103(a) OVER MOORE IN VIEW OF CASH AND FURTHER IN VIEW OF CHEN

Claims 5 and 6 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Moore* in view of *Cash*, and further in view of *Chen et al.*, US 4,851,109 ("*Chen*"). Office Action, at 7. Applicants respectfully traverse these rejections.

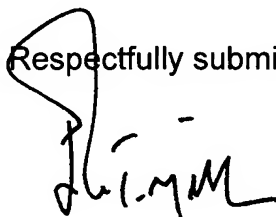
Regarding Claims 5 and 6, Applicants respectfully point out that these Claims depend directly or indirectly from Independent Claim 1. As such, Claims 5 and 6 are not obvious over *Moore* in view of *Cash* for the same reasons Claim 1 is not obvious over *Moore* in view of *Cash*. See *In re Fine*. Because the combination of *Moore* and *Cash* is improper (see above), further combination with *Chen* is irrelevant. Accordingly, Claims 5 and 6 are not obvious over *Moore* in view of *Cash*, and further in view of *Chen*.

As a result of the foregoing, Applicants respectfully request that the Examiner withdraw the rejection of Claims 5 and 6 under 35 U.S.C. § 103(a) as being unpatentable over *Moore* in view of *Cash*, and further in view of *Chen*.

V. **CONCLUSION**

As a result of the foregoing, it is asserted by Applicants that the Claims in the Application are now in a condition for allowance, and Applicants respectfully request allowance of such Claims. Applicants further request that the Examiner call Applicants' Agent at the below listed number if the Examiner believes that such a discussion would be helpful in resolving any remaining problems.

Respectfully submitted,



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